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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/663,841	09/17/2003	Yoshisada Nakamura	Q77504	2704

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EXAMINER

NAKARANI, DHIRAJLAL S

ART UNIT	PAPER NUMBER
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1773

DATE MAILED: 11/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/663,841

Applicant(s)

NAKAMURA ET AL.

Examiner

D. S. Nakarani

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on September 7, 2005 & July 26, 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 4-25 is/are pending in the application.
- 4a) Of the above claim(s) 10-25 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 4-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

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DETAILED ACTION

1. Applicant's election without traverse of Group I, claims 1-9, in the reply filed on July 26, 2005 is acknowledged.

2. Claims 10-25 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected inventions, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on July 26, 2005.

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1,2 and 4-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Ashida et al (U. S. Patent 5,824,462).

Ashida et al disclose a resin coated paper comprising a paper coated on side (the reverse side) with a first resin layer comprising a mixture of high density polyethylene (HDPE) and low density polyethylene (LDPE) and another side (the obverse side on which an image-forming layer (i.e. image receiving layer) with second resin layer comprising a mixture of titanium

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dioxide (10 wt%), LDPE (9.5 wt%, density=0.920 g/cm³, MFR=8.5 g/10 min.), LDPE (65 wt%, density=0.920 g/cm³, MFR=4.5 g/10 min.) and HDPE (15 wt%, density=0.970 g/cm³, MFR=7.0 g/10 min.) (Example 19, col. 27, line 58 to col. 28, line 21). Ashida et al disclose that the resin coated paper is useful as the support for photocopying print paper (i.e. electro photographic paper) (Col. 13, line 46). Ashida et al disclose image receiving layer can be made of polyester resins, poly(vinyl acetate) resins etc. (Col. 14, lines 21-37). These resins are deemed to be thermoplastic resins unless shown otherwise. The polyethylenes of the second layer have at least one polyethylene having density of 0.920 g/cm³. The mixture of polyethylenes recited above for the second resin layer when melt compounded would result in polyethylene compounded product having density of 0.928 g/cm³ and melt flow rate between 4.5 and 8.5 g/10 min. Ashida et al forms support by melt extrusion coating (Col. 28, line 14). Ashida et al's second resin layer comprises two polyethylene having different densities and the amount of polyethylenes is 89.5 wt%.

6. Claims 1,2 and 4-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ashida et al (U. S. Patent 5,824,462) in view of Ogino et al (U. S. Patent Application Publication 2002/0037176 A10) Takehana et al (U. S. Patent 5,885,698) and Ikeuchi et al ((U. S. Patent 6,444,383 B2).

Ashida et al, which have been discussed above in paragraph 5, fail to disclose composition of toner image receiving layer forming polyester resin.

Ogino et al disclose an electro photographic transfer sheet comprising paper support (40) coated both side of the paper support (40) polyethylene coating layers (41) and an image

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receiving layer 43 formed of a thermoplastic polyester resin (Paragraph 0050). The thermoplastic polyester resin has glass transition temperature 30°C or less, weight average molecular weight of 15,400 and number average molecular weight of 6,600 thus $Mw/Mn = 2.33$ (Paragraph 0122). The polyester resin is an aqueous dispersion (paragraph 0101). Ogino et al fail to disclose glass transition temperature of polyester resin.

Takehana et al disclose an electro photographic image receiving film having image receiving layer made of water dispersible polyester having glass transition temperature 35°C or higher (col. 5, lines 18-24), a number average molecular weight of from 1500 to 5000 and Mw/Mn of from 1.2 to 3.0 (col. 6, lines 25-30).

Ikeuchi et al disclose an image receiving sheet having polyester image receiving layer. The polyester has number average molecular weight ranging from 1500 to 7000. Ikeuchi et al disclose that when number average molecular weight is low, the resin is too soft and has excessive blocking and when the molecular weight is high, the resin is too hard and decreases compatibility with toner (col. 7, lines 11-55). Ikeuchi et al's polyester resin has glass transition temperature 53°C or higher (Examples).

Therefore it would have been obvious to a person of ordinary skill in the art at the time of this invention made to utilize of disclosures of Ogino et al, Takehana et al and Ikeuchi et al in the invention of Ashida et al et al to use polyester resin of Ogino et al, Takehana et al or Ikeuchi et al for image receiving layer depending on toner compability and desired cohesive energy for toner.

No claims are allowed.

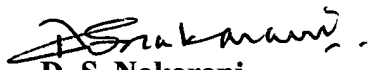
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7. Applicant's arguments with respect to claims 1-9 have been considered but are moot in view of the new ground(s) of rejection.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to D. S. Nakarani whose telephone number is (571) 272-1512. The examiner can normally be reached on Tuesday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney can be reached on (571) 272-1284. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


D. S. Nakarani
Primary Examiner
Art Unit 1773

Dsn
November 21, 2005.